# Livestock Auction Market Costs in West Virginia

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## SUMMARY

West Virginia livestock auctions first came into being in the 193 Their number reached a peak in 1950 and then began to decrease. Th growth pattern has been similar to our Nation's farming industry, that the trend is now towards fewer, larger, and more efficient firms.

The purpose of this study was to estimate costs per animal sold different size livestock auction firms in West Virginia. The statisti description method was used to determine the appropriate cost relatio ships for West Virginia's auction markets. The objective was to det mine the most efficient size range in terms of cost per animal marketed

A statistical regression equation was used to convert diverse anim l species (cattle, calves, hogs, sheep and lambs) to common livestoc marketing units (LMU's). It was found that, in terms of their individu l contributions to total cost, one "cattle" was equivalent to three calves r four hogs or to five sheep or lambs. These equivalents were each co sidered as one LMU.

Average costs were then obtained by dividing total auction marl t costs by the number of livestock marketing units (LMU's) handled each firm in one year. It was found that group average costs for fir handling less than 6,000 LMU's were $4.70 per LMU, group avera costs for firms handling between 6,000 and 12,000 LMU's were $3.9 and for firms handling more than 12,000 LMU's per year, the cost w $3.59 per LMU. Statistical analyses of market costs indicated signific cost decreases occurred as volume increased toward 6,000 LMU's p year. Cost decreases were not as great for firms handling over 6,0 LMU's, though smaller cost advantages did occur with increasing anm turnover.

The study indicated the major cost factor for all markets was that labor. For all West Virginia auction firms, labor averaged $2.36 p LMU which was about 58 per cent of average total marketing cost p LMU ($4.09).


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# LIVESTOCK AUCTION MARKET COSTS IN WEST VIRGINIA

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The most common method of marketing livestock in West Virginia through livestock auctions. West Virginia's first livestock auction was chartered in 1932. Fifteen more auctions were organized from 1932 to 1938, six were established in the 1940's, and one in 1950. Since 1950, however, four of West Virginia's auction markets have closed down.

This decline in the number of auction markets was accompanied by a decline in the volume marketed (Table 1) and in the farm inventory of livestock (Table 2). In Table 1, the years 1966, 1967, and 1968 showed a decline in the numbers of cattle and calves, hogs, and sheep and lambs sold through auction markets. The inventory of livestock on West Virginia farms also showed a decline during that period. From Table 2, it can be seen that in the year 1968, cattle and calves, hogs, and sheep and lambs accounted for 86.99 per cent, 78.48 per cent and 72.69 per cent of the 1961-1965 average inventory on farms, respectively.

## OBJECTIVE

The purpose of this study was to examine the nature of the livestock auction markets in West Virginia and to relate auction costs to volume of livestock marketed. Costs per unit of output (or per animal marketed) can give an indication of the best or most economical size of auction markets in the State.

## PROCEDURE[1]

Every year, each auction market in the State reports its costs and the volume of livestock marketed to the West Virginia Department of Agriculture.[2] The Annual Reports for two years (1967 and 1968) were used to determine cost-volume relationships by means of statistical regression analyses.

Additional information on the nature and characteristics of West Virginia's livestock auction facilities was obtained by interview from personnel of the State Department of Agriculture and West Virginia University.

[1] For a more complete discussion of any points covered in this study see Bulletin 600T, W.Va. Exp. Sta., by E. Maclellan Wilson and John P. Kuehn.

[2] W.Va. Dept. of Agr. *Annual Reports of Livestock Auction Markets: 1961-1968* (Summary). Charleston: West Virginia Department of Agriculture.

# MARKET CHARACTERISTICS

## Ownership

Of the 20 West Virginia auction firms operating in 1967 and 1968, 1 were corporations, one was a single proprietorship, one was a partnership and the remaining firm was a cooperative enterprise. The statutory provisions of West Virginia require that each auction firm operating in the State must apply for an annual permit regardless of the type of ownership.[3] It was further required that before a permit would be issued a firm had to post a surety bond payable to the State for the protection of consignors.[4]

## Facilities[5]

The auction markets in the State consisted of the following facilities which are required for normal marketing operations: receiving and loading docks, pens and alleys sufficient for livestock handling, weighing facilities, grading and testing pens with catching chutes, sheep dipping facilities, water troughs, office space and equipment, a sales arena, a refreshment service, and facilities for the public (rest rooms and drinking water).

Most auctions had adequate loading and unloading docks. Usually the same dock was used for both loading and unloading. The primary means of transportation was the motor truck, and the highway and access roads were considered adequate with the qualification that the development of the interstate highway system will greatly improve the efficiency of livestock transportation.

Pens and alleyways were considered adequate for the peak fall turnover but were not usually used to capacity during the rest of the year. Pens were most commonly constructed of wood, and in four cases overhead viewing walkways were provided.

The West Virginia statutes require that each market employ a licensed auctioneer at each sale.[6] Weighing facilities were supervised by representatives of the State Departments of Agriculture and Labor. All official grading, sorting and classifying was conducted by State Department of Agriculture personnel with fees for this service being charged to the auctions.

[3] W.Va. Dept. of Agr. *Laws of W.Va. Relating to Agriculture and Veterinarians*, (Charleston W.Va. Dept. of Agr., 1965), p. 9 reprinted from Michie's W.Va. Code of 1961 and 1965 Cumulative Supplement

[4] *Ibid.*, p. 10.

[5] Unless footnoted otherwise, the material presented under this heading was obtained from a personal interview with Joseph C. Emch, State Extension Specialist, Animal Husbandry, West Virginia University, and Noah E. Perry, Chief of the Livestock Section, West Virginia Department of Agriculture.

[6] Laws of West Virginia Relating to Agriculture and Veterinarians, *op. cit.*, p. 10.

## TABLE 1

LIVESTOCK MARKETED THROUGH WEST VIRGINIA AUCTIONS, BY CLASS: 1961-1968[a]

| Year | Cattle and Calves | Hogs | Sheep and Lambs |
|---|---|---|---|
| 961[b] | 252,705 | 64,553 | 167,702 |
| 962 | 265,201 | 71,799 | 163,179 |
| 963 | 264,137 | 69,618 | 147,819 |
| 964 | 258,195 | 61,528 | 125,845 |
| 965 | 270,523 | 51,883 | 121,194 |
| 966 | 234,332 | 56,112 | 117,488 |
| 967 | 192,396 | 54,880 | 112,431 |
| 968 | 197,444 | 55,044 | 108,476 |
| 961-1965 Average | 262,152 | 63,876 | 145,147 |
| 968 as % of 1961-1965 Average | 75.32 | 86.17 | 74.74 |

ource: From Annual Reports of Livestock Auction Markets to the West Virginia Department of Agriculture, 1961-68.
'wo markets out of 22 did not report.

## TABLE 2

LIVESTOCK INVENTORY, WEST VIRGINIA, BY NUMBER ON HAND JANUARY 1, 1961-1968[a]

| ear | Cattle and Calves | Hogs | Sheep and Lambs |
|---|---|---|---|
| 61 | 535,000 | 95,000 | 275,000 |
| 62 | 530,000 | 83,000 | 256,000 |
| 63 | 514,000 | 82,000 | 241,000 |
| 64 | 504,000 | 73,000 | 214,000 |
| 65 | 494,000 | 62,000 | 205,000 |
| 66 | 459,000 | 54,000 | 191,000 |
| 67 | 427,000 | 60,000 | 178,000 |
| 68 | 448,000 | 62,000 | 173,000 |
| 61-1965 Average | 515,000 | 79,000 | 238,000 |
| 68 as % of 1961-65 Average | 86.99 | 78.48 | 72.69 |

urce: 1961-1967 data from West Virginia Department of Agriculture. **1968 West Virginia Agricultural Statistics.** West Virginia Crop Reporting Service, C. R. Bulletin No. 7 (Charleston: February, 1968), pp. 17, 19, and 20. Data for 1968 were from United States Department of Agriculture, **Livestock and Poultry Inventory, January 1: Number, Value, and Classes,** Crop Reporting Board, Statistical Reporting Service, U. S. Department of Agriculture (Washington: U. S. Department of Agriculture, February, 1969), pp. 9, 10, and 14.

Sales were held once a week at each market, commencing in the afternoon between one and two o'clock on the assigned day and lasting from four to six hours. Major buyers consisted of farmers, packers, and order buyers. The relative importance of any one buyer group appeared to vary from season to season, though an accurate appraisal of this variation was not possible.

## LIVESTOCK AUCTION COSTS

Cost data from the Annual Reports of auction markets in the West Virginia Department of Agriculture were averaged for 1967 and 1968.

**TABLE 3**

COST BREAKDOWN FOR WEST VIRGINIA LIVESTOCK AUCTIONS, AVERAGE DATA FOR 17 FIRMS IN 1967 AND 15 FIRMS IN 1968*

| Unit | Dollars | | Percentage of Total Costs | |
|---|---|---|---|---|
| Labor | 18,397.69 | | 56.1 | |
| Officers and Executives | | 2,895.18 | | 8.8 |
| Management and Supervision | | 1.502.37 | | 4.6 |
| Office Salaries | | 4,376.25 | | 13.3 |
| Wages | | 7,438.47 | | 22.7 |
| Auctioneer | | 2,185.42 | | 6.7 |
| Utilities | 1,156.38 | | 3.5 | |
| Investment Costs | 6,915.05 | | 21.1 | |
| Depreciation | | 1,829.55 | | 5.6 |
| Insurance and Bonds | | 1,769.20 | | 5.4 |
| Taxes | | 1,953.12 | | 5.9 |
| Interest | | 1.206.31 | | 3.7 |
| Capital Improvement Cost | | 156.87 | | 0.5 |
| Operating Costs | 3 834.96 | | 11.7 | |
| Repairs and Maintenance | | 829.63 | | 2.5 |
| Office Supplies | | 1,034.45 | | 3.2 |
| Feed | | 176.92 | | 0.5 |
| Transportation and Gasoline | | 264.94 | | 0.8 |
| Market News Service | | 965.44 | | 2.9 |
| Lease Costs | | 563.58 | | 1.7 |
| Miscellaneous | 2,489.10 | | 7.6 | |
| TOTAL | 32.793.18 | | | 100.0 |

*Source: Computed from "Expenses During Year" section of the Annual Report of auction markets to the West Virginia Department of Agriculture, 1967 and 1968.

and classified into the following categories: (1) labor costs—officers and executive salaries, management and supervisor salaries, office salaries (clerical), wages, and the auctioneer's salary; (2) utilities—heat and fuel, light and power, water, telephone and telegraph; (3) investment costs—depreciation and depletion of operating equipment, insurance and bonds, taxes, interest, and capital improvement costs; (4) operating costs—repairs and maintenance of buildings, equipment and land, office supplies (stamps, stationery, etc.), feed, transportation and gasoline, market news service, and lease costs; (5) miscellaneous—yard supplies, veterinary fees, medicines and vaccines, grading fees, death losses, freight charges, donations, bad debts, legal and audit fees, workmen's compensation, subscriptions and dues, and licenses (Table 3).

Total labor costs were the largest component of total market cost (56.1 per cent), and wages accounted for the largest portion of this figure, amounting to 40.4 per cent of total labor costs and 22.7 per cent of total cost. Investment costs were 21.1 per cent of total cost, operating costs were 11.7 per cent, and utilities and miscellaneous costs were 3.5 per cent and 7.6 per cent, respectively.

## LIVESTOCK VOLUME

Livestock auctions in West Virginia handle a range of agricultural commodities including cattle, calves, hogs, sheep and lambs, horses and mules, chickens, rabbits, and miscellaneous merchandise. Since the latter items constituted a relatively small percentage of the total dollar volume, only cattle, calves, hogs, and sheep and lambs were included in this study. Tables 4 and 5 show the livestock volume expressed in terms of the number of each species handled by each auction for 1967 and 1968, respectively. These volumes were also compared to the total cost of operation for each market.

## LIVESTOCK MARKETING UNITS

It was an objective of this study to relate auction costs to livestock volume in order to determine the most efficient size auction market. The previous section showed livestock volume and its total cost for each market. However, these comparisons were of individual markets handling different combinations of the various livestock species. It was, therefore, necessary to convert these diverse combinations of species into common units. Cattle, calves, hogs, sheep and lambs were converted into livestock marketing units (LMU's) by means of statistical regression techniques. By the use of these techniques, the various species were related

TABLE 4

ANNUAL MARKET COSTS AND LIVESTOCK VOLUME BY MAJOR SPECIES, FOR 19 WEST VIRGINIA LIVESTOCK AUCTIONS, 1967*

| Market Code | Cattle | Calves | Hogs | Sheep & Lambs | Total Costs |
|---|---|---|---|---|---|
| 6701 | 3,437 | 5,791 | 3,268 | 10,649 | $ 27,698.3 |
| 6702 | 12,801 | 4,558 | 5,751 | 14,375 | 57,633.9 |
| 6703 | 6,136 | 6,223 | 15,175 | 2,811 | 47,172.3 |
| 6704 | 11,685 | 3,212 | 639 | 694 | 49,294.8 |
| 6705 | 5,733 | 3,220 | 534 | 2,052 | 24,115.1 |
| 6706 | 3,021 | 4,348 | 839 | 2,356 | 33,612.3 |
| 6707 | 1,689 | 634 | 318 | 2,209 | 9,511.7 |
| 6708 | 2,339 | 1,895 | 610 | 605 | 14,755.4 |
| 6709 | 1,025 | 834 | 734 | 2,825 | 10,570.0 |
| 6710 | 2,936 | 1,419 | 331 | 231 | 15,393.9 |
| 6711 | 5,049 | 4,195 | 1,589 | 1,957 | 27,842.5 |
| 6712 | 1,693 | 3,602 | 837 | 1,582 | 17,716.7 |
| 6713 | 1,187 | 2,679 | 459 | 18,837 | 20,253.1 |
| 6714 | 9,730 | 3,951 | 3,780 | 524 | 37,464.6 |
| 6715 | 14,325 | 4,300 | 10,781 | 36,863 | 101,334.2 |
| 6716 | 7,737 | 9,043 | 1,394 | 1,524 | 47,426.7 |
| 6717 | 7,538 | 4,538 | 2,565 | 5,109 | 35,943.5 |
| 6718 | 10,211 | 4,994 | 3,081 | 3,681 | 45,945.2 |
| 6719 | 8,697 | 3,005 | 1,378 | 3,338 | 46,889.7 |

*Source: Derived from the 1967 Annual Reports of Livestock Auction Market to the Commissioner of Agriculture, West Virginia Department of Agriculture, Charleston.

to each other in terms of their individual contributions to—or shares of —total cost. It was found that for each additional head of cattle marketed, total costs would increase by $3.68. For each additional calf the increase would be $1.29; for each hog, $0.88; and for each sheep or lamb, $0.77. In ratio form then, one "cattle" is equivalent to three calves or four hogs, or five sheep or lambs. This ratio then made it possible to add cattle, calves, hogs, and sheep and lambs. For example, an auction handling three cattle and five sheep would be selling four livestock marketing units (LMU's).

## ANALYSIS OF COST AND VOLUME DATA

The livestock volumes for each auction were converted to common livestock marketing units and ranked according to annual volume in LMU's. Table 6 shows the ranking for 1967 and 1968 and the total cost

## TABLE 5

ANNUAL MARKET COSTS AND LIVESTOCK VOLUME, BY MAJOR SPECIES, FOR 17 WEST VIRGINIA LIVESTOCK AUCTIONS, 1968[a]

| Market Code | Cattle | Calves | Hogs | Sheep & Lambs | Total Costs |
|---|---|---|---|---|---|
| 6801 | 3,612 | 6,485 | 2,918 | 10,618 | $ 29,551.30 |
| 6802 | 12,638 | 4,653 | 5,903 | 12,231 | 93,502.57 |
| 6803 | 7,200 | 5,691 | 15,526 | 2,164 | 51,354.40 |
| 6804 | 12,144 | 5,092 | 824 | 752 | 53,313.29 |
| 6805 | 3,814 | 1,459 | 385 | 938 | 21,256.55 |
| 6806 | 2,052 | 556 | 265 | 1,710 | 14,418.60 |
| 6807 | 3,199 | 1,672 | 623 | 691 | 17,432.55 |
| 6808 | 1,014 | 812 | 582 | 2,823 | 8,277.92 |
| 6809 | 3,096 | 1,654 | 342 | 162 | 17,600.67 |
| 6810 | 4,566 | 3,731 | 1,223 | 1,901 | 27,984.86 |
| 6811 | 1,657 | 3,613 | 532 | 1,383 | 15,660.75 |
| 6812 | 1,794 | 2,830 | 302 | 19,622 | 20,872.52 |
| 6813 | 9,680 | 3,691 | 4,522 | 353 | 37,238.00 |
| 6814 | 7,046 | 8,234 | 1,053 | 957 | 46,957.34 |
| 6815 | 6,381 | 4,080 | 2,217 | 4,577 | 38,258.60 |
| 6816 | 11,415 | 5,107 | 3,276 | 3,363 | 47,636.26 |
| 6817 | 10,143 | 3,115 | 1,210 | 3,611 | 50,862.16 |

[a]Source: Derived from the 1968 Annual Reports of Livestock Auction Markets to the Commissioner of Agriculture, West Virginia Department of Agriculture, Charleston.

per LMU for each market. There was a general decline in total cost per LMU as the number of LMU's handled increased.

In 1967 volume ranged from 2,052 LMU's per year in the smallest to 25,326 LMU's in the largest auction market. In 1968, the range was from 1,995 to 14,609.[7]

In order to compare costs per LMU on the basis of individual components of total cost, the auction firms were divided into three size groups. The first group was composed of all auctions handling less than 6,000 LMU's per year. The second group included those markets handling from 6,000 to 11,999 LMU's per year and the third group contained the firms handling 12,000 LMU's and over. The components of total cost (labor, utilities, investment cost, operating cost, and miscellaneous costs) in dollars per LMU were averaged for each of the three groups and presented in Table 7.

[7] Cost data for the largest firm (28,710 LMU) in 1968 were not available. The second largest firm in 1968 was omitted from all cost analysis in the study due to a bias in the data resulting from participation in non-market business operations in that year.

TABLE 6

SIZE RANGE AND AVERAGE TOTAL COSTS FOR WEST VIRGINIA AUCTION MARKETS, RANKED IN ASCENDING ORDER OF LIVESTOCK MARKETING UNITS 19 FIRMS IN 1967, 16 FIRMS IN 1968

| 1967 | | 1968[b] | |
|---|---|---|---|
| LMU | Cost per LMU | LMU | Cost per LMU |
| 2,052 | $5.15 | 1,995 | $4.15 |
| 2,422 | 3.93 | 2,646 | 5.45 |
| 3,244 | 4.55 | 3,271 | 4.79 |
| 3,419 | 5.18 | 3,765 | 4.67 |
| 3,538 | 4.35 | 4,050 | 4.30 |
| 5,151 | 6.52 | 4,584 | 4.64 |
| 5,962 | 3.40 | 6,496 | 4.31 |
| 7,236 | 3.85 | 6,737 | 3.10 |
| 7,350 | 3.28 | 8,627 | 3.43 |
| 8,314 | 3.33 | 9,211 | 4.15 |
| 10,711 | 4.38 | 10,249 | 4.58 |
| 10,714 | 3.35 | 12,111 | 3.07 |
| 11,405 | 4.16 | 12,206 | 4.17 |
| 12,097 | 3.10 | 13,411 | 3.83 |
| 12,566 | 3.75 | 14,198 | 3.75 |
| 13,054 | 3.78 | 14,609 | 3.26 |
| 13 382 | 3.43 | | |
| 18,633 | 3.09 | | |
| 25,326 | 4.00 | | |

[a]Source: Derived from data in Tables 4 and 5.
[b]Cost data for the largest firm (28,710 LMU's) in 1968 were not available. The second largest firm in 1968 was omitted from all cost analyses in the study due to a bias in the data resulting from participation in non-market business operations in that year.

Total costs per LMU for all auctions (all size groups combined) amounted to $4.09. For the small markets (below 6,000 LMU's per year) group average total cost was $4.70; for the intermediate size auctions (6,000-11,999 LMU's), $3.83; and for the largest markets (12,000 LMU's and over), $3.59. There was, therefore, a decline in average total cost per LMU as market size increased. The individual components of total cost, in most cases, also reflected this decline.

## STATISTICAL ESTIMATES OF AUCTION COSTS

The previous section compared total cost per LMU to firm size (in LMU's) for three different size groups. It was decided, however, that this relationship could be made clearer by presenting the data in

## TABLE 7

MEAN COSTS PER LIVESTOCK MARKETING UNIT FOR MAJOR COMPONENTS BY SPECIFIED FIRM SIZE GROUPS, 19 FIRMS IN 1967, 16 FIRMS IN 1968[a]

| Costs per LMU | Market Size Group in LMU's[b] 0-5,999 | 6,000-11,999 | 12,000 or over | All Markets Combined |
|---|---|---|---|---|
| | Dollars per LMU | | | |
| Labor | **2.90** | **1.97** | **2.11** | **2.36** |
| Officers & Executives | 0.40 | 0.28 | 0.40 | 0.36 |
| Management & Supervision | 0.35 | 0.04 | 0.16 | 0.20 |
| Office Salaries | 0.85 | 0.74 | 0.49 | 0.70 |
| Wages | 0.96 | 0.74 | 0.82 | 0.85 |
| Auctioneer | 0.32 | 0.31 | 0.22 | 0.28 |
| Utilities | **0.16** | **0.16** | **0.12** | **0.15** |
| Investment Cost | **0.63** | **0.80** | **0.68** | **0.71** |
| Depreciation | 0.14 | 0.24 | 0.16 | 0.18 |
| Insurance & Bonds | 0.16 | 0.21 | 0.20 | 0.19 |
| Taxes | 0.29 | 0.20 | 0.21 | 0.24 |
| Interest | 0.04 | 0.15 | 0.11 | 0.10 |
| Capital Improvement[c] | 0.00 | 0.00 | 0.00 | 0.00 |
| Operating Cost | **0.53** | **0.48** | **0.39** | **0.47** |
| Repairs & Maintenance | 0.11 | 0.08 | 0.08 | 0.09 |
| Office Supplies | 0.17 | 0.11 | 0.13 | 0.14 |
| Feed | 0.02 | 0.05 | 0.01 | 0.03 |
| Transportation & Gasoline | 0.02 | 0.04 | 0.03 | 0.03 |
| Market News Service | 0.06 | 0.13 | 0.10 | 0.09 |
| Lease Costs | 0.15 | 0.07 | 0.04 | 0.09 |
| Miscellaneous | **0.48** | **0.42** | **0.29** | **0.40** |
| TOTAL | **4.70** | **3.83** | **3.59** | **4.09** |

Source: Computed from data from the Annual Reports of Livestock Auction Markets to the West Virginia Department of Agriculture, 1967 and 1968. All values rounded.

[a] The number of observations in the 1 to 5,999 LMU, 6,000 to 11,999 LMU, and 12,000 LMU and over groups was 13, 11, and 11, respectively, except for the components of total labor costs. Not all reporting firms submitted a breakdown of these components. Twelve, nine, and ten firms, respectively, submitted the single figure of total labor costs; therefore, the group mean costs per LMU of the components of total labor cost will approach but not equal the group mean cost per LMU of all labor.

[c] The capital improvement cost for all groups averaged zero because only one firm in the population reported any capital improvement cost figure.

graphical form. A graph comparing costs per LMU to total LMU's handled would show a continuous relationship where costs per LMU could be estimated for any size firm handling between zero and 30,000 LMU's per year (Figure 1).

Figure 1 shows that costs per LMU decrease over the entire range of livestock volume. The decrease is more pronounced between zero and 6,000 LMU's with lesser but still significant decreases taking place in the larger markets. Cost decreases in markets handling between zero and 6,000 LMU's per year amounted to about $1.00 per LMU. This figure declined an additional $0.30 to $0.40 per LMU in the larger firms (6,000-24,000 LMU).

## CONCLUSIONS

It seemed likely that the present trend toward fewer and larger, more efficient firms would continue due to the cost advantages occurring in larger firms. This decrease, however, is not necessarily in accord with the wishes of the various groups involved in auction market operations. Farmers in West Virginia, for example, market relatively small lot sizes of animals. They desire auction facilities close to the point of production.

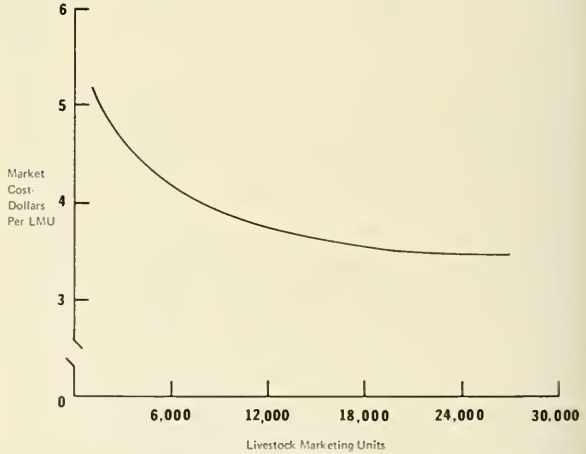


Figure 1
Auction Cost of Annual Volume in Livestock Marketing Units (1967 and 1968).

Packers and order buyers, on the other hand, desire large lots of animals in as few locations as possible to facilitate their buying practices. Auction market operators desire a larger volume of animals, more evenly spaced over the year, at lower cost per unit of livestock turnover.

These generalized findings suggest some potential areas where the livestock economy of the State could be improved. These include: (1) increasing livestock marketing volume in the State or adjusting the mix between auctions of existing volumes to take advantage of decreasing costs associated with larger market volume; (2) allowing competition between auction firms to seek its natural level by adjusting the regulation of commission fees and allowing more than one sales day per week per firm; and (3) an increase in the economic and physical efficiency of the industry which could result from fewer and larger markets, more efficiently located, or more efficient use of men and physical facilities.

An increase in the number of livestock marketed through auctions may come about by increasing total production in the State or by improving the economic desirability of auction markets relative to other channels of marketing. Allowing competition to seek its own level (by relaxing or adjusting government control of auction pricing and sale practices) may be one means of improving the economic perspective of some auction facilities. This increased competition may also have the effect of causing more efficient use of labor and physical facilities. An improved interstate highway system (now under construction) could have the effect of facilitating the transportation of livestock from farm to auction market and from the market to the various feed-lots, packers, and other farms throughout the State and surrounding areas.

These measures are interrelated and the feasibility of implementing one or more of them varies due to the present institutional framework of the State. It is also fairly safe to assume, that based on the trends in the industry towards fewer, larger, and more efficient markets, that the suggested improvements will come about over time at least partially without any external form of intervention. The number of auction markets has been decreasing, highways are being constructed, efficiency appears to be increasing.

However, an improvement in the auction sector at this time may improve the relative strength of the livestock industry as a whole. The measures suggested by this study could initially improve the economic position of some individual auction operators. With fewer and larger markets, revenues of livestock producers could increase. Lot sizes would be larger and highways more efficient, attracting more buyers, and in some cases, large commingled lots of uniform animals bring higher prices. Transportation costs, particularly from farm to auction market,

however, may increase, due to a reduced number of more widely dispersed auction markets.

It can be seen from these conclusions, that all of the effects on the industry of the suggested improvements are not known with certainty. In order to rectify this situation, research is now underway to determine more specifically the nature of our livestock industry and how it can be effectively improved.


. Pearce